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ABSTRACT

This booklet approaches the question of whether competency-based teacher education (CBTE) and performance-based teacher education (PBTE) can foster meaningful change in teacher preparation programs. The following sections are included: (a) CBTE background and definitions of related terms; (b) a differentiation between PBTE and CBTE, with PBTE seen as providing teacher education candidates with specified teaching behaviors to be demonstrated and CBTE seen as assessing preservice candidates on the basis of the results they are able to obtain with elementary and secondary school students; (c) an exemplification of issues with the Nebraska University Secondary Teacher Education Program (NUSTEP) including objectives, instruction in NUSTEP, learner assessment and evaluation, program assessment and evaluation, and promises and problems for NUSTEP; and (d) the challenge for teacher education, which encompasses assumptions for CBTE, program development, and promises to be achieved. The prognosis for establishing CBTE is not favorable since teacher preparation programs may continue to be based on unsupported assumptions and beliefs about the knowledge or behaviors that teachers should have. It is felt that little effort will be expended in identifying the relationships between teaching skills and the learning outcomes obtained by the pupils. (JCW)

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THREE VIEWS OF COMPETENCY-BASED TEACHER EDUCATION: III UNIVERSITY OF NEBRASKA

Edgar Kelley

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By Edgar A. Kelley

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TABLE OF CONTENTS

An Introduction to CBTE 5

CBTE: Background and Definitions 7
The Decoding of Jargon: Some Definitions 8

PBTE and CBTE: There Is A Difference 13

NUSTEP: A PBTE Program 15
Instruction in NUSTEP 16
Learner Assessment and Evaluation 18
Program Assessment and Evaluation 19
Promises and Problems for NUSTEP 20
A Summary and Prognosis 22

The Challenge for Teacher Education 23
Assumptions for CBTE 23
CBTE Program Development 24
CBTE: Still To Be Achieved 25

Annotated Bibliography 28

AN INTRODUCTION TO CBTE

"Education, thought of as a means to a better life, is judged to be as successful as life itself happens to be."

Harry S. Broudy, 1972

The history of educational development in America provides an extensive record of innovations which have been greeted with enthusiasm, gained a fleeting popularity, and been abandoned as other enthusiasms developed. The current bandwagon appeal of competency-based teacher education (CBTE) and performance-based teacher education (PBTE) may, when the cheering stops, add one more example to the list of educational movements which, in retrospect, are judged to have yielded far less than they had promised.

The issue of improving teacher education is a continuing one. At the present time, CBTE and PBTE movements are being hailed as the best means for improving preservice and inservice teacher preparation. Whether these movements will lead to recognizable strengthening of teacher preparation will depend on whether or not the following conditions can be met:

1. Can a definition of terms be provided which identifies the characteristics of both CBTE and PBTE and limits the accountability of programs to promises which can be fulfilled?
2. Will the necessary resources be provided to test CBTE and PBTE approaches? Will adequate evaluation efforts be applied?
3. Can developmental efforts in PBTE and CBTE be evolution-

ary in their interaction with existing programs of teacher preparation?

This booklet is addressed to the increasingly serious question of whether or not CBTE and PBTE can foster meaningful change in teacher preparation programs. To illustrate issues, the author uses specific examples drawn from the NUSTEP program at the University of Nebraska. NUSTEP—an acronym for Nebraska University Secondary Teacher Education Program—is one of the handful of performance-based teacher education programs operating prior to 1971. Initiated in 1968-1969 and put into operation in 1969-1970, NUSTEP has enrolled approximately two thousand students during its five years of operation. Its comparative longevity is one of the characteristics which make NUSTEP a valuable source for identifying both the promises and problems of PBTE and CBTE.

CBTE: BACKGROUND AND DEFINITIONS

Both CBTE and PBTE originated from the same pressures for change in teacher education. However, the two terms are not synonyms. The major distinction between CBTE and PBTE is one of degree, that is, the extent of the promises which are made regarding the preparation of teachers.

In the years since the orbiting of sputnik, the confidence of Americans that their nation and its educational system were superior to any other was shaken, and a debate over the needs which should be met by the schools has accelerated. The romantic critics of the past decade have accused our nation's schools of crippling the spirit and development of youth. While other educators defended the schools, general agreement developed that our schools must become better than they have ever been before. And both critics and advocates of the schools agreed that better schools require better teachers. Thus, demands for reform in education led to demands for improved teacher preparation. After all, it was reasoned, those who teach and administer in our schools were themselves crippled by their experiences as students in the elementary and secondary schools and in outmoded and stagnant preparation programs at colleges and universities.

The PBTE and CBTE movements represent attempts by schools of education to respond to recent reform movements. During the first decade after sputnik, it seemed that teacher education might remain virtually unchanged in the midst of demands for educational reform. By the late 1960s, however, the current wave of enthusiasm for performance-based and competency-based teacher

education had begun to develop; it is now a tidal wave. Yet, as a survey conducted and reported in 1973 by Educational Testing Service in cooperation with the American Association of Colleges for Teacher Education revealed, only twenty-two institutions had PBTE programs in operation prior to the fall semester of the 1971-1972 academic year, and only 131 of 783 institutions had an operating PBTE program during the 1973-1974 academic year. The same survey, however, indicated that 70 percent of all teacher training institutions were involved in planning, operating, or considering the implementation of CBTE and PBTE programs.

Existing CBTE and PBTE programs have been in operation for too short a time for adequate analysis of their effectiveness. Even with the lack of adequate data, the enthusiasm for CBTE and PBTE has spread with missionary zeal. Thirty-one states have provided legislative or state department of education support for investigation or action related to support for the movement; seventeen have required or mandated CBTE and PBTE programs and certification standards. As Benjamin Rosner and Patricia M. Kay have indicated (*Phi Delta Kappan*, Jan., 1974) this bandwagon approach to PBTE and CBTE has developed without adequate assessment and evaluation of programs and without recognizing that we cannot expect instant solutions for "one of the most complex ventures ever to be undertaken in education."

The Decoding of Jargon: Some Definitions

During the past year, the problem of defining terms being used in the PBTE and CBTE movements has captured the attention of an increasing number of teacher educators who were pioneers in the movement. A greater number, however, faced with pressures generated by state mandating of performance-based or competency-based programs and certification requirements, have jumped into the organization and operation of programs with little or no attention to the problem of providing a conceptual base for programs through careful definition and specification of terms being used. And it should be self-evident that a new educational approach lacks credibility unless it is clearly defined.

Objectives: For more than a decade, there has been a strong emphasis on the development and use of objectives. Much of the

work in this area derives from Benjamin Bloom and David Krathwohl's taxonomy of educational objectives, which classifies objectives as being cognitive, affective, and psychomotor. Phrased simply, these objectives were concerned with knowing, feeling (attitudes, beliefs, values, perceptions), and doing. W. Robert Houston and Robert B. Howsam suggest five categories of objectives for use in teacher preparation program planning. One of their categories, exploratory objectives, is not really an example of objectives since it focuses upon activities which will be experienced rather than upon outcomes which will be obtained.

The best definition of an objective is the specification of outcomes to be obtained. Based on Houston and Howsam's list, there are four categories of objectives commonly included in teacher preparation programs:

1. Cognitive objectives focus upon what the student is to know. More specifically, objectives which require student knowledge about teaching or about a subject matter discipline are examples of cognitive objectives. Most teacher education programs have focused, in the past, on cognitive objectives. Often attainment has been measured in global ways, such as grade point averages or scores on standardized tests (the National Teacher Examination).
2. Affective objectives are concerned with beliefs, attitudes, values, and perceptions which an individual has of himself or of others as well as the beliefs, attitudes, and perceptions which others have of the individual. All too often, this type of information has been reported informally, for example, by a letter which might be written for a teacher's placement or a personnel file indicating that the teacher had "a good attitude," "was enthusiastic," or "doesn't get along well with others."
3. Performance objectives are concerned with specified behaviors which are to be demonstrated by the student. In a teacher education program, performance objectives define the verbal and nonverbal behaviors to be demonstrated by the teacher. These behaviors, for the most part, have been selected on the basis of assumptions about what a teacher should do to be effective. In the past decade,

considerable research has been conducted in an attempt to define probable results of specific teaching behaviors. Video-taped teaching sequences and various coding patterns or systems have been used to identify relationships between observable teacher behaviors and subsequent learner behaviors.

4. Consequence objectives are concerned with specifying the learner results to be obtained by the teacher. The teacher is judged to be effective or ineffective on the basis of whether or not the students being taught are able to achieve the intended learning outcomes. The achievement of cognitive, affective, or performance objectives by the student in a teacher education program does not guarantee that the pupils taught by the teacher will achieve intended outcomes. PBTE programs focus upon the behaviors to be exhibited by the teacher while CBTE programs focus upon the behaviors to be exhibited by the pupils taught by the teacher.

Accountability: The interest in accountability has been based on a growing interest in measuring results of education rather than processes being used by educators. More simply, concern has been focused upon whether or not students in elementary and secondary schools obtain intended results. Thus, the emerging focus has been upon consequence objectives rather than upon cognitive, affective, or performance objectives. Teacher performance is important when it results in intended outcomes. Leon Lessinger, sometimes referred to as the "father of accountability," has stated that accountability consists of the ability to deliver on promises which are made or implied. Other writers have suggested that accountability is limited by the degree of control which can be exercised by educators; for example, the teacher or school may be accountable for results obtained within the classroom but will be unable to make promises about final results because of other influences on the learner in his out-of-school activities.

Accountability refers to the ability to provide a rationale for actions which are planned and implemented, the responsibility of limiting promises to situations where sufficient control is possible so that the individual or organization can legitimately

be held to account for the outcomes obtained, and the willingness to be held responsible for the outcomes which are actually achieved.

Performance-Based: Program is organized with primary emphasis on the teaching behaviors to be demonstrated; typically, cognitive and affective objectives are also specified. Existing PBTE programs have given some attention to the ability of the preservice teacher to obtain specified learning outcomes for the pupils he teaches, that is, to obtain consequence objectives. Yet, all existing teacher education programs remain heavily or exclusively tied to assessing and evaluating teacher candidates, on the basis of standards related to cognitive, affective, and performance objectives.

Competency-Based: Any competency-based program is based on the definition given to competence. Competence is defined here as the specific skills a pupil can perform or knowledge he can apply in ways both he and his audience (the teacher) consider positive. To measure competence accurately requires accumulating sufficient evidence over a long period of time to define what constitutes competence. Thus, competence is measured by repeated and consistent attainment of intended consequence objectives. A CBTE program is, by definition, more concerned with the consequences obtained than with the specification of cognitive, affective, or performance objectives. Objectives in these latter categories are important only to the extent to which they enable the desired results or consequences to occur when the preservice teacher candidate is teaching pupils.

PBTE AND CBTE: THERE IS A DIFFERENCE

Until recent years, teacher education has consisted primarily of courses in which the teacher candidate learned cognitive knowledge about teaching; during a student teaching experience, the candidate practiced what he had learned although specified performance objectives were often not provided. The PBTE programs which have been developed are aimed at providing teacher education candidates with specified teaching behaviors which are to be demonstrated. For the most part, the PBTE movement has resulted in a clarification of existing standards for teaching. The preparation of teachers remains tied to standards which specify what the teacher is to know, do, or feel.

There are no CBTE programs in operation. To provide competency-based teacher education in any meaningful sense, it will be necessary to assess preservice teacher candidates on the basis of results they are able to obtain with pupils in elementary and secondary school classrooms.

Much of the discussion about traditional teacher education, performance-based teacher education, and competency-based teacher education has created considerable confusion. Advocates of each of these approaches to teacher education have mistakenly left the impression that the discussion is over the definition of good teaching. This is not so. The distinctions between these approaches to teacher education are distinctions of degree rather than purpose; each approach is aimed at producing good teachers.

Traditional programs of teacher education assume that a prospective teacher who learns about desired teaching behaviors will be able and likely to utilize them in the classroom. Knowl-

edge of teaching behaviors demonstrated on written exercises is the appropriate evaluation criterion of prospective teachers in traditional programs.

PBTE approaches assume that a prospective teacher who can demonstrate desired teaching behaviors, as specified in the teacher preparation program, will be able to use those behaviors effectively with pupils in elementary and secondary classrooms. Demonstrated performance of specified teaching behaviors is the appropriate criterion for evaluation of prospective teachers in PBTE programs.

CBTE, although not yet achieved in any significant fashion in any program of teacher education, is a concept based on the assumption that the results obtained by a prospective teacher in work with pupils in elementary and secondary classrooms is the appropriate criterion for evaluation of prospective teachers. Furthermore, the theoretical demand of CBTE would be that the teacher be able to repeatedly achieve, more often than not, the intended results.

An example will help to complete this clarification of differences in approaches. A common purpose in all three programs might be to have teachers provide positive reinforcement to pupils. In a traditional program of teacher education, the prospective teacher would be expected to discuss the rationale and purpose for using positive reinforcement. In a PBTE approach, the prospective teacher would be required to demonstrate practices of positive reinforcement in actual work with pupils or in simulated experiences. In a CBTE approach, the teacher would be required to use reinforcement techniques but would be expected to show that the techniques produced the desired results with pupils in actual classroom settings. The prospective teacher would need to demonstrate the use of reinforcement on multiple occasions and would need to be able to prove that intended learning results occurred for pupils on most of these occasions.

PBTE and CBTE are not conflicting movements. The most productive approach to understanding and planning for change in teacher education can occur only when PBTE is seen as an approach which builds from traditional programs. CBTE, if and when it is achieved in any systematic manner, will only represent an improvement in accountability over PBTE approaches.

NUSTEP: A PBTE PROGRAM

The Nebraska University Secondary Teacher Education Program (NUSTEP) was one of the earliest examples of performance-based teacher education. It was planned during the 1968-1969 academic year and initiated during the 1969-1970 academic year. A joint effort of the Department of Secondary Education and the Department of Educational Psychology and Measurements in Teachers College at the University of Nebraska, NUSTEP has been designed, implemented, and developed as a performance-based teacher education program for some subject areas in secondary teacher preservice education. Four subject areas were originally included: English, music, science, and social studies. Other subject areas included since are business teacher education, speech, modern foreign languages, and mathematics.

NUSTEP is organized on the basis of specified objectives to be completed by students in the program. These objectives include specified cognitive, affective, and performance objectives. The primary emphasis of the program is on completing performance objectives (specific, observable teaching behaviors) which the student must demonstrate in microteaching or in work with pupils in the secondary schools of the area. This emphasis on performance objectives is the basis for categorizing NUSTEP as an example of PBTE. While some efforts have been made to measure the consequences of teaching behaviors demonstrated by students in the program, the NUSTEP student is presently assessed and evaluated on the basis of his teaching behaviors rather than results obtained by students he teaches. The long-range goal is to move to a competency-based program in which teacher education students would be evaluated on the basis of

results obtained with pupils in secondary classrooms.

The criteria established within the NUSTEP program have so far been limited to cognitive knowledge about teaching or teacher behaviors and to performance objectives. For the most part, the objectives were formulated by the professional staff in NUSTEP. Without exception, these objectives are assumptions about the knowledge and skills a teacher should have rather than statements based on firm evidence that the objective, if attained, produces improved learning results for pupils taught by teachers trained in the NUSTEP program. The NUSTEP program, and teacher education programs generally, lack data which clearly describe the correlation between teacher education objectives and results achieved in classrooms.

The objectives of NUSTEP are related to eight broad goals which have been adopted by the Department of Secondary Education at the University of Nebraska. These goals are the stated intent of all preparation programs the department provides. The department seeks to produce teachers who are:

1. humanizing agents,
2. active and productive citizens,
3. directors of learning,
4. guides for the development of pupils,
5. mediators of the culture,
6. members of the education profession,
7. participants in cooperative staff activities, and
8. skilled representatives of one or more subject matter disciplines.

Instruction in NUSTEP

Students enroll in NUSTEP during their junior year or during the first semester of their senior year. The NUSTEP program, consisting of nine academic credit hours, constitutes more than 50 percent of the student's course load during the semester he is enolled. Students who successfully complete NUSTEP typically enroll in student teaching during the subsequent semester.

The student enrolled in NUSTEP generally uses twenty hours per week in program activities; approximately half of this time

is spent in lectures, laboratory, or self-instructional activities and the remaining half in field experiences where required performance objectives can be demonstrated. Most field placements are in the public schools of Lincoln and Omaha.

The on-campus instruction of NUSTEP students utilizes learning modules printed in booklets, self-instructional materials located in the media centers of Teachers College and the university, and classroom lectures and discussions. Instruction provided by the NUSTEP staff is team planned and, in most instances, team taught. Each student is assigned to one staff member who serves as his proctor, responsible for helping the student plan, conduct, assess, and evaluate the activities which the student engages in to demonstrate performance for both required and chosen objectives.

Off-campus activities of NUSTEP students are planned by the student, his NUSTEP proctor, and the classroom teacher who serves as his cooperating teacher in the field. Considerable effort is given to planning activities appropriate to specific classroom settings, to existing skills of the NUSTEP student, and to completing required performance objectives.

The printed learning modules prepared by the NUSTEP staff are organized in three ways. *A Basic Learning Tasks* booklet contains eleven required learning modules which identify cognitive and performance criteria. A booklet is printed for each discipline in the NUSTEP program, such as English, and most of these booklets contain approximately ten modules designed specifically for developing teaching skills in the discipline. All include ten additional modules designed to provide additional depth and breadth to the student's use of principles of educational psychology and secondary education in his teaching behaviors.

In addition to the two booklets which each student receives for basic and subject matter learning tasks, an additional set of individually prepared modules and descriptions of exploratory activities are available to students. Both the booklets and the separately printed learning modules contain many of the reading materials necessary for a basic introduction to the topic; the learning task description also identifies other media resources available within the university. Student fees for materials have averaged fifteen dollars, and these fees have covered printing

costs of the booklets and replacement of consumable materials used by students.

Each module or learning task contained in any of the printed booklets or instructional packages is prefaced by a learning task description. Each of these descriptions follows a standard format which includes: 1) a rationale for the problem area or concept, 2) a list of objectives for student performance, 3) the prerequisites, if any, 4) the learning activities—including readings, activities for classroom (on-campus) practice, and activities for student practice in field settings (classrooms in the secondary schools), and 5) performance criteria for successful completion of the module.

Learner Assessment and Evaluation

The NUSTEP staff member who serves as proctor for a student is responsible for judging whether or not the student's performance has met the criteria specified for each learning module in the program. He is also responsible for grading the student's performance. The program is success based; a student may recycle unsatisfactory performance until criteria levels are met, and students who do not meet required levels are issued incompletes. Approximately 20 percent of the students are given incompletes each semester. Of this number, half complete the program at a later time and the other half often discontinue teacher preparation.

In assessing and evaluating student performance, the proctor typically makes extensive use of data obtained from other staff members, from the cooperating teacher in the secondary classroom, and from observation of the student's interaction with his pupils in the secondary school. As the program has evolved, the use of ratings of student performance by more than one staff member has increased and the reliability of ratings for specified criteria has been developed. Also, approaches for using ratings of teacher behavior from both university staff in the discipline areas and secondary school teachers who serve as cooperating teachers have been improved. But developing techniques for assessing and evaluating NUSTEP student performance based on results with pupils in the classroom remains a program goal which

has thus far been unmet. It is this area of program development which must be addressed if NUSTEP is to achieve a competency-based teacher education program.

Program Assessment and Evaluation

An investigation of the perceptions which NUSTEP trained teachers had of their preparation after one year as a practicing teacher revealed that the NUSTEP trained teacher, in comparison with other first-year teachers, was significantly more likely to describe his teacher preparation experiences as:

1. Providing better teaching practices than those common to most secondary school teachers;
2. Providing instructors (the NUSTEP staff) who had modeled the teaching behaviors recommended for use in secondary schools;
3. Encouraging the use of innovative, flexible, and multiple approaches to instructional methodology;
4. Preparing him more adequately for the use of audiovisual equipment and procedures;
5. Having provided beneficial opportunities to learn and test out teaching behaviors through microteaching experiences, field experiences, and through the video-taping and analysis of teacher behaviors.

A study of the effects of practicing teaching behaviors in the field revealed that NUSTEP students were more positive about the NUSTEP program and more skilled in performing the desired teaching behaviors than students who had simulated experiences in lieu of field experiences. Data collected from NUSTEP students and from cooperating teachers from 1970 to 1974 support the following findings:

1. NUSTEP students feel the program provides, especially via experiences in secondary classrooms, good preparation for student teaching and teaching.
2. Cooperating teachers consider NUSTEP trained student teachers more effectively prepared for teaching than student teachers not trained in NUSTEP.

3. The educational values of students trained in NUSTEP, as measured by the Educational Values Inventory, an instrument constructed and validated by the author and two colleagues at the University of Nebraska, change between entering and completing the NUSTEP program. Significant changes are toward self-perceptions of greater flexibility, more self-confidence, less concern with control-for-the-sake-of-control in work with pupils in secondary schools, and more pupil-centered attitudes and behaviors in instructional approaches used with secondary pupils.

Based on existing data, a tentative conclusion has been drawn that the NUSTEP program is as effective—and probably more effective—in producing skilled teachers than are other past or present teacher preparation programs at the University of Nebraska.

Promises and Problems for NUSTEP

The preliminary and admittedly soft learner and program assessment and evaluation data available for the NUSTEP program suggest the promise of PBTE as experienced by one program. By extension, the success of NUSTEP lends credibility to the idea that PBTE and CBTE approaches might, if fully implemented, become a significant lever for educational reform.

Concurrent with its success, NUSTEP has also been plagued by chronic problems. Susan S. Sherwin identifies six problems common to many of the PBTE efforts which are underway, including NUSTEP.

A major problem for PBTE is the need for more persons. NUSTEP has met this need by reassigning personnel from other tasks, by using a greater number of graduate students in program operation, and—most importantly—by involving tirelessly devoted staff members in the creation and operation of the program. Even so, NUSTEP has not had the necessary staffing to operate the instructional program and at the same time to design, implement, and conduct the needed research and development.

A second problem for NUSTEP, and for most PBTE efforts, is the need for money. While related to the need for adequate

human resources in that salaries must be paid, financial resources are also needed for materials production, technological equipment, and research personnel and services. Other than a few small grants from internal sources, the NUSTEP program has been planned and implemented through the reallocation of existing rather than additional funds.

Another problem is resistance to the concept of PBTE from colleagues. This was a major problem at some stages and remains a major problem for many PBTE efforts. Overt resistance to NUSTEP has declined in direct relation to the growing evidence of its value. Resistance, when it occurs, is often a response to the overzealous approach used by some advocates of PBTE and CBTE. The major internal resistance to NUSTEP, after five years of operation, is an outgrowth of the legitimate concern over whether existing human and fiscal resources should be reallocated to support PBTE or used for other pressing problems.

A fourth problem common to PBTE programs is that such programs often require more space. While this has been an occasional problem for NUSTEP, it has not been a major problem. A fifth area of common concern, the need for additional equipment to handle some of the mediated approaches used in instruction, has also not been a major concern in the operation of the NUSTEP program.

Obtaining and maintaining the cooperation of institutions involved in the operation of a PBTE program is the sixth major problem. Generally, NUSTEP has enjoyed highly cooperative arrangements with the public and private secondary schools of the area. Cooperation within the NUSTEP staff and by the two departments primarily involved in the operation of the program has been functional, although concerns of a specific nature continually develop and must be dealt with. Support at other institutional levels, for example, Teachers College or university levels, while not negative, has been less than active. Areas of concern, past and present, include provision of necessary research and development funds by Teachers College or the university, active involvement of faculty members from the discipline areas in the College of Arts and Sciences, and revision of the rewards system within the college and university to reflect an emphasis on the improvement of college level teaching.

21

A Summary and Prognosis

NUSTEP is one of the oldest efforts at implementation of PBTE—especially for the preparation of secondary school teachers. The program has been in operation for five years and the evidence available would indicate that the PBTE approach employed in the NUSTEP program is more effective in training prospective teachers than other approaches which have been used at the University of Nebraska. On the other hand, the development and continued operation of the NUSTEP program has required a greater allocation of human and fiscal resources than is required for other instructional approaches. Even with the use of additional resources, the NUSTEP program has been unable to meet its own program development goals; both the short-range needs of providing instruction and the long-range needs of research and development could not be satisfactorily met.

The prognosis for progressing from the NUSTEP program of the PBTE concept to the development of operational CBTE approaches is not good. The necessary human and fiscal resources are currently unavailable, and outside resources are not likely to provide the funding needed for extensive developmental efforts.

One immediate concern is whether the existing level of voluntary staff overload based on a commitment to the PBTE concept can be reasonably expected to continue. Another equally pressing concern is the issue of whether the reallocation of human and fiscal resources within the Department of Secondary Education, which has made the development of NUSTEP possible, can be expected to continue or whether these resources should be used for other developmental needs.

While other PBTE efforts are, for the most part, at earlier stages of program development, problems which currently confront the NUSTEP program may be ubiquitous to the PBTE and CBTE movements. If the promise of the PBTE movement is to be realized, additional human and fiscal resources will be needed. And if CBTE is to become a reality, not just a rallying slogan, massive expenditures of time, money, and human resources will be needed.

22

THE CHALLENGE FOR TEACHER EDUCATION

Assumptions for CBTE

There is little known evidence to justify requiring any given teaching skill or behavior. There is even less reason for selecting and mandating unilateral instructional approaches. The skills to be learned, the sequencing of learning, the means by which instruction is provided, and the relative importance of any given skill are all variables, not absolutes. Not only the prospective teacher's training program, but also the cooperating teacher he works with during student teaching and the experiences he has in his first teaching job will influence his teaching behaviors.

In the absence of data which identify the relationships between teacher preparation programs and the improvement of instruction in the public schools, there is little rational justification for selecting monolithic programs. One criticism of teacher education programs has been that all students are trained in the same way and must meet the same requirements. Most PBTE programs have attempted to provide flexibility, but the program requirements soon become as concrete as the requirements were in the former teacher education program.

If programs which claim to be PBTE or CBTE programs are to provide ways of changing, long-range research and development must identify the predictable interaction, if any, between the many variables which influence the teacher education student. Those who have reviewed existing research about the knowledge, skills, or attitudes and values required for successful teaching are in substantial agreement that existing evidence is weak, thin, and self-serving. It is not very helpful in providing a means of predicting teacher success or assessing teacher competence.

Rosner and Kay have suggested that one outcome of the

current interest in PBTE and CBTE may be a greater recognition and support of "the interdependence between teacher behavior research and teacher education program development and implementation." Obtaining this outcome, however, is not enough:

> The long-range impact of CBTE on the nation's schools is not likely to be felt for at least ten years, a time span which makes for no small difficulty when it comes to selling CBTE program development to faculties and funding agencies. The major reason it will take so long is the need to upgrade the currently inadequate state of knowledge concerning relationships between elements of teacher education curriculum and indicators of effective schooling.

CBTE Program Development

Program development in education often consists of reorganizing content in response to enthusiasms or fads. Changes are made on the basis of assumptions and beliefs or in response to transient issues or pressures. Many changes are, if carefully examined, merely the relabeling of existing practices.

If CBTE programs are to be adequately designed and developed, they will need: 1) careful specification of short-range criteria for evaluating learners on the basis of assumptions about desired teacher behavior and of procedures for measuring specific learning achievements; 2) specific procedures and criteria for measuring teachers when they enter preparation programs, when they complete their preparation, and for assessing the relationship between their training and subsequent performance as a teacher; and 3) development of necessary research techniques for data pooling and for longitudinal studies of learner and program outcomes.

In the model shown below the cells formed by the model identify possible clusters of data collection and research efforts needed if relationships between various types of objectives and levels of professional development are to be studied and defined. The model serves the need for clear statements regarding what is to be known, what is to be felt or expressed by self or others, what skills are to be performed, and what long-range results are expected as a result of knowing, feeling, and doing.

DECISION POINTS	CATEGORIES FOR CRITERION MEASURES			
	Cognitive	Performance	Affective	Consequence
1 Entry				
2 Preservice Program				
3 Beginning Teacher				
4 Experienced Teacher				

Existing data about teacher education programs is incomplete and imprecise. While program planners for the time being will have to operate from assumptions in order to state criteria and procedures within the cells of the model shown, in time evidence can be collected so that relationships can be more precisely defined between each of the variables.

CBTE: Still To Be Achieved

Despite the initial steps taken by various colleges, state governments and agencies, and professional organizations, the promise of CBTE is yet to be achieved. If it is to be achieved at all, much remains to be accomplished. At the very least, educators must forego premature claims of success. Programs in teacher education must specify the limits of their accountability; they must avoid promising more than can be delivered.

Research must identify relationships between entry requirements and program requirements. It must also identify and define the outcomes beginning and experienced teachers achieve with the pupils in elementary and secondary schools. When sufficient data is available to predict teaching effectiveness, that information can be used to help select and recruit prospective teachers. At a minimum, knowledge about criteria of teacher effectiveness would help students determine the betting odds on their chances for success as a teacher.

Competency-based teacher education will not be achieved unless a number of changes occur in procedures for preparing and certifying teachers. To provide adequate time to obtain data about each teaching candidate, one or more of the following changes will need to occur:

1. Preservice programs will need to be extended to permit the inclusion of teaching internships lasting two years.
2. Certification standards will need to be revised so that distinctions between initial teaching certificates and permanent or professional certificates are based on stated performance and consequence criteria. Continuing to base credentials on the accumulation of years of service in teaching and the acquisition of additional academic credit hours should be eliminated.
3. Supervision of teacher performance and measurement of consequence data in school settings will need to be improved so that the retention, dismissal, or promotion of teachers is based upon the teacher's ability to achieve intended consequences.

The prognosis for establishing CBTE is not favorable. It is more likely that the existing bandwagon momentum will continue to accelerate during the next few years. For the most part, this will mean that teacher preparation programs will continue to be based on unsupported assumptions and beliefs about the knowledge or behaviors which teachers should have. Most of the attempts to reform teacher education will probably continue to focus upon increased specification of the areas of knowledge or skills which the preservice teacher will be required to show. Little effort will be expended in identifying the relationships between clusters of skills and the learning outcomes obtained by the pupils.

We can expect a gradual increase in teacher skills and teacher behaviors, and some improved outcomes from the efforts being expended are probable on the basis of random chance. We can also expect new waves of criticism about teacher education. As the overall level of teacher skills increases, our demands as a nation will change, and so will our perceptions of what constitutes good teaching.

When the PBTE and CBTE movements for reform of teacher education are evaluated at some future time, the analysis will probably be made on the basis of whether or not the improvements in teacher education which were achieved were reasonable in relation to the promises made and the resources used. That judgment could be favorable; I am not certain that it will be.

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